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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/377,447      | 08/19/1999  | JEFFREY P. BEZOS     | AMAZON.012A1        | 7836             |

20995 7590 01/16/2003

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EXAMINER

ZURITA, JAMES H

ART UNIT PAPER NUMBER

3625

DATE MAILED: 01/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/377,447

Applicant(s)

BEZOS ET AL.

Examiner

James Zurita

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Examiner rejected claims 1-36 in a First Office Action of 7 February 2002 under 35 U.S.C. 102(e) as being anticipated by Linden (US Patent 6,266,649).

In an amendment filed 5 April 2002, applicants amended claims 1, 2, 4, 12, 24, 26, 32, 33, 35, 36 and added new claims 37-50. A second office action rejected claims 1-50 as being unpatentable over Linden et al. US Patent 6,266,649.

Applicant amendment of 16 October 2002 added claims 51-57 and amended claims 1, 32, 33, 35, 43, 44, 45 and 50.

Claims 1-57 remain and will be examined.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 12, 26, 32 and 43 have been considered but are moot in view of the new ground(s) of rejection. Rejection of these particular claims are addressed below under section Claim Rejections - 35 USC § 103.

Applicant argues that Obviousness over [a reference] depends not on whether the claimed processing methods could be performed on the user account data disclosed in [the reference], but rather on whether [the reference] actually discloses or suggests such processing methods. In response to this argument, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would

otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicants requested that Examiner identify specific prior art references that disclose analysis tools and algorithms. These are identified below, in the section entitled Claim Rejections - 35 USC § 103. See at least references to Robinson (US Patent 5,790,426) concerning the use of statistical tools and algorithms in an automated collaborative filtering system.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27, 28, 29 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims refer to a "domain" in an email address and that a "domain" is used to identify subsets of users. However, email addresses contain several segments, including the rightmost part of a name that is its zone or top-level domain name (e.g., com). To the zone's left is the name of the company, school or organization. This is sometimes called the second-level domain name. The part to the left of the organization name identifies a particular computer within an organization.<sup>1</sup> Thus, it is unclear which portion of an email address is being used to identify a domain and a related subset of users

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<sup>1</sup> E-mail for Dummies, IDG Books, page 51, *Domain Names*.

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The term "popular" or "more popular" or "popularity" in claims 1, 2, 3, 12, 15, 20, 21, 26, 37, 39, 40, 42-46, 50-53 are relative terms which renders the claim indefinite.

The term "popular" or "more popular" "popularity" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The term "relatively popular" in claim 43 is a relative term which renders the claim indefinite. The term "relatively popular" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bieganski (US Patent 6,321,221) in view of Robertson (US Patent 6,269,369) and further in view of Robinson (US Patent 5790426).

Bieganski discloses systems, methods and computer processes for providing a database which stores information about a plurality of user communities, wherein different

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communities represent different subsets of users of a sales system (see at least Fig. 5 and related text, Col. 7, line 51-Col 8, line 9). Bieganski tracks user activity and stores the information as purchase history data (see at least Col. 16, lines 38-49, Col. 17, line 25-Col. 18, line 24). Bieganski processes at least purchase history to identify at least one item which, based on actions of both members and non-members of a selected community of said plurality of user communities, has become popular within the selected community relative to its popularity outside the selected community (see at least Col. 16, line 63-Col. 17, line 24). Bieganski electronically recommends items to users of selected communities (Col. 7, lines 12-Col. 8, line 24). Bieganski discusses the roles of communities of users, and also refers to affinity groups and neighborhoods to identify sets and subsets of users (see at least Col. 6, lines 38-65).

Bieganski discloses techniques for generating personalized recommendations from user interest profiles. Bieganski *does not* specifically disclose storing email addresses, using email addresses, address books, domain names to distribute information to interested users. Robertson discloses personal contact manager system that issues notifications to a user's contacts when a preset event takes place. Robertson allows users to find contacts based on common group affiliations and notifies users when there are coincidences in their data (see at least Abstract, Fig. 3 and related text, Col. 2, lines 5-44).

Therefore, it would have been obvious to combine Bieganski and Robertson to include sending personalized recommendations in the form of email. One of ordinary skill in the art at the time the invention was made would have been motivated to include

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sending personalized recommendations in the form of email for the obvious reason that email provides a simple, effective way to distribute information, particularly information that is requested by a user and where a user signs up to receive notification (e.g., an explicit community). For example, email may serve to remind a user concerning items to purchase for birthdays, as Robertson discloses in his Abstract and at least in Col. 1, lines 1-10.

*Bieganski does not* use the terms velocity/acceleration of an item within a subset, or velocity/acceleration of an item in a general population. *Bieganski does not* specifically disclose the use censored chi-square algorithm to identify an item or a set of items to distinguish a subset of users from a general population of users according to the item(s), or that is relatively popular among a subset of users. However, Statistical analysis methods analyze discrete and continuous probability distributions.

Comparative marketing analysis also includes analyzing and comparing how an item sells within different subsets of a general population. Discrete distributions include the geometric, the hypergeometric, and the negative binomial; Continuous distributions include the uniform, exponential, gamma, chi-square, beta, t, and F). For example, Robinson (US Patent 5,790,426), discloses at least the use of statistical tools including binomial and Z-score distributions, a Chi-Square distribution. Robinson presents alternative techniques to recommending at least one item to a first user based on similarity in presence of the user as compared with other users (see at least Abstract, see also at least Col. 28, lines 49-56).

Therefore, it would have been obvious to one of ordinary skill in the art of electronic commerce at the time the invention was made to include various types of statistical analysis, including continuous probability distributions such as chi-square, as in Robinson.

One of ordinary skill in the art of electronic commerce at the time the invention was made would have been motivated to include various types of statistical analysis, including continuous probability distributions such as chi-square as in Robinson, for the obvious reason that statistical analysis packages and methods are critical to improve marketing and sales of products. Better marketing through statistical analysis promotes more sales of products and increased profits for a business. Their use also allows merchants to satisfy user queries and recommend items recommended by subsets of other groups. Many statistical analysis packages exist and may be combined alone or with others to study purchase history data and arrive at estimates and explanation for past and future activity at web sites. Merchants thereby provide increased customer satisfaction, which often translates into economic growth, more jobs, and more profits.

Bieganski *does not* specifically disclose that sets or subsets of users may be identified by geographical area. Robertson discloses several database tables, including tables that include geographic data (Col. 4, lines 61-Col. 6, line 39). Robertson discloses that one might use geographical radius to notify users. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include geographic information to create sets and subsets of communities. One of ordinary skill in the art at the time the invention was made would have been motivated



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to include geographic information to create sets and subsets of communities for the obvious reason that users in similar geographic areas often purchase similar items. By notifying sets of users of recommended catalog items within a geographic area, a company is able to maximize the efficiency of marketing and recommendation campaigns. For example, a catalog might contain user affinities and information concerning heavy winter clothing. It would make sense to focus recommending this and related items to subsets of users who live in Finland or Maine rather than to subsets of users who live in Miami. A user living in Maine is more like a user from Finland in that they both would be interested in recommendations concerning winter clothing. Similarly, a ski group in Italy might be used to create ranked recommendations of ski equipment to ski groups in France or Germany (i.e., a defined geographic radius that might include skiers in Europe). If one were notifying a subset of skiers in the United States (i.e., an example of an implicit community defined by geography), such a web site might focus its marketing to present US skiers with catalog information concerning European user comments about France's Rossignol skis, rather than only K2 equipment. Or perhaps statistical analysis may show that skiers also enjoy SCUBA diving and view and purchase SCUBA equipment. Thus, a merchant might display customized web pages or send email messages notifying skiers and divers that certain new equipment has recently become popular.

### ***Conclusion***

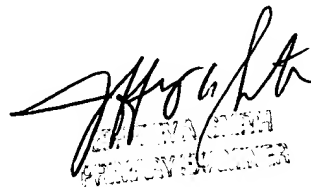
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Zurita whose telephone number is 703-605-4966. The examiner can normally be reached on 8:30 am to 5:00 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

J2  
**James Zurita**  
**Patent Examiner**  
**Art Unit 3625**  
January 13, 2003



James Zurita  
Patent Examiner  
Art Unit 3625